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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/605,554 | 10/08/2003 | Johan HULTEN | 07589.0128.PCUS00 | 2553 |
| 28694 | 7590 | 03/26/2004 | EXAMINER | |
| HOWREY SIMON ARNOLD & WHITE LLP 1299 PENNSYLVANIA AVE., NW BOX 34 WASHINGTON, DC 20004 | | | BURCH, MELODY M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3683 | |

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/605,554 | Applicant(s) HULTEN, JOHAN | |
| | Examiner Melody M. Burch | Art Unit 3683 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>11/18/03</u> . | 6) <input type="checkbox"/> Other: _____ |

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. The references listed include, for example, the article "An Assumed Modes Method Approach to Disc Brake Squeal Analysis" mentioned in paragraph 11 and GB-2143916 and SE-504272 mentioned in paragraph 17.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the coefficient of friction of the brake lining varying in the longitudinal direction as claimed in claim 12 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Examiner notes that figure 1 shows wear variation but fails to show the coefficient of friction variation. Examiner also notes that in line 3 of claim 1 Applicant claims side edges but only illustrates one side edge 18. Examiner further notes that the side edge would seem to correspond to the area to which the lead line of number 16 points. Also, in line 3 of paragraph [0020] of the instant application Applicant describes side edges but only indicates one number 18.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 2, 3, and 4 are objected to because of the following informalities:
- The phrase "the' brake lining" in the last line of claim 2 should be changed to --the brake lining--;
 - The phrase "that one end edge" in lines 3 and 4 of claims 3 and 4 should be changed to --that one of the two end edges-- to maintain consistency.
- Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:
- The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re: claims 1, 12, and 15. The phrase "the end edge portions" first claimed in line 2 from the bottom of claim 1 lacks proper antecedent basis.

Re: claims 2 and 9. The phrase "an end edge portion" first claimed in line 2 from the bottom of claim 2 is indefinite. It is unclear to the Examiner whether "an end edge portion" is intended to be the same or different from one of the "end edge portions" claimed in claim 1.

Re: claims 10 and 11. The phrase "the end portion" first claimed in lines 1-2 of claim 10 lacks proper antecedent basis.

Re: claims 1 and 15. The phrase "the two end edges" in line 3 from the bottom is indefinite. In line 3 of claim 1, Applicant simply claimed "end edges" but did not specify the exact number of end edges as recited in line 3 from the bottom of the claim.

The remaining claims are indefinite due to their dependency from claim 1.

6. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 11 recites the broad recitation of the length of the end portion being between five and forty percent of the distance between the end edges, and the claim also recites the length of the end portion being between ten and thirty percent of the distance between the end edges which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

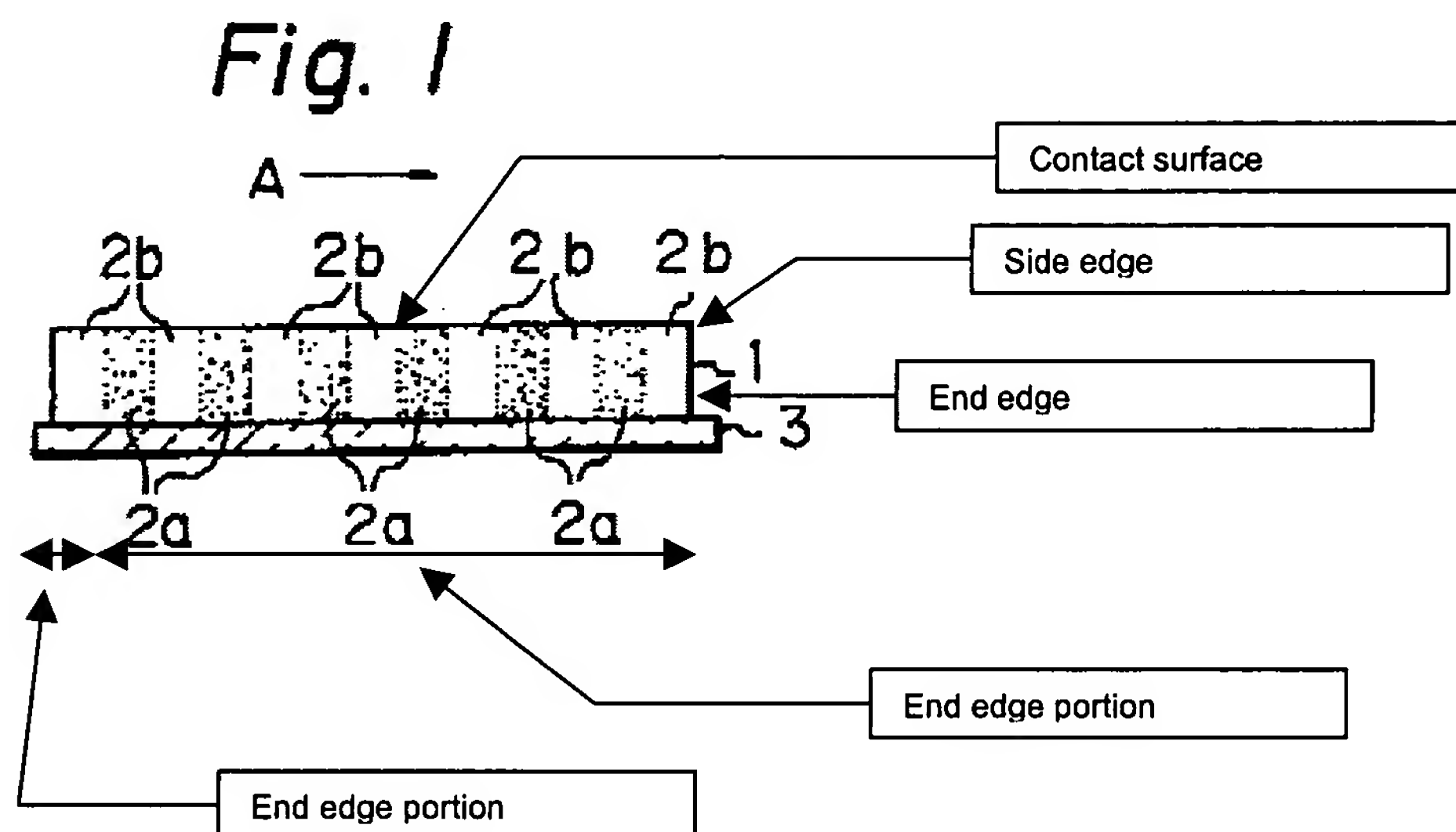
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-3, 12, 13, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by GB-2148424 (GB'424).

Re: claims 1-3, 12, and 15. GB'424 shows in figure 1 a brake member comprising: a rear plate 3 bearing a brake lining 1, the brake lining having at least one contact surface as labeled, side edges as labeled and as best understood, and end edges as labeled, the brake lining having a resistance to wear that varies in a longitudinal direction between

the two end edges so that at least one of the end edge portions of the brake lining has lower wear resistance than a remaining part of the brake lining as disclosed in lines 85-87 and in lines 106-107.



Re: claim 13. GB'424 discloses in line 2 of the abstract the brake member constituting a component of a disk brake arrangement.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 5-8, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB'424.

Re: claims 5-8. GB'424 describes the limitation wherein there is a variation in

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resistance to wear of the brake lining but is silent as to the percentage of the variation in the wear resistance.

Examiner notes that Applicant lacks an explanation of criticality associated with the variation in wear resistance between the two end edges being specific percentages. In light of the absence of an explanation of criticality, Examiner notes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the variation in the wear resistance between the end edges of GB'424 to have been at least approximately five percent, ten percent, fifteen percent, or twenty percent in order to change the effect of the noise reducing and braking properties of the brake pad since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Re: claims 10 and 11. GB'424 shows in figure 1 the limitation wherein an end portion, as best understood, has a length with respect to the distance between the end edges, but is silent as to the percentage of length with respect to the distance between the end edges.

Examiner notes that Applicant lacks an explanation of criticality associated with the difference between the end portion length and the distance between the end edges being specific percentages. In light of the absence of an explanation of criticality, Examiner notes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the length of the end portion of GB'424 to have been between five and forty percent or particularly between ten and thirty percent

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in order to change the effect of the noise reducing and braking properties of the brake pad since it has been held that discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

11. Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB'424 in view of JP-2000-179616 (JP'616) (using US Patent 6378670 to Kawakami et al. as an English equivalent).

GB'424 is silent as to the manner in which the variation in wear takes place from one end edge to the other being gradual.

JP'616 teaches in col. 4 lines 46-47 and in figures 1 and 2 the limitation wherein a variation in brake pad characteristic in an end edge portion 13e,13d between one of two end edges and a remaining portion 13b,13a takes place gradually.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the manner in which the brake pad characteristic, particularly wear resistance, varies in the pad of GB'424 such that it took place gradually, as taught by JP'616, in order to provide a means of securely stopping a rotating disk while providing effective vibration reduction as suggested by JP'616 in col. 4 lines 46-47.

12. Claims 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over GB'424 in view of US Patent 4485898 to Bracken et al.

GB'424 describes the invention substantially as set forth above, but does not include the limitation of the brake member constituting a component in a drum brake arrangement.

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Bracken et al. teach in col. 1 lines 11-12 that noise and squeal are produced in both disc brakes and drum brakes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the brake member of GB '424 to have been incorporated into a drum brake assembly, in view of the teachings of Bracken et al., in order to provide a means of reducing the brake noise/squeal in a drum brake assembly.

Double Patenting

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 1-9, 13, 14, and 15 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9, 12, 13, and 14 of copending Application No. 10249254 in view of GB'424. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claim 1 of the instant and copending applications claim a brake device or member comprising a rear plate, a brake lining having at least one contact surface, side edges, and end edges, and a brake lining characteristic that varies in a longitudinal

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direction between the two end edges so that at least one of the end portions of the lining has a lower brake lining characteristic than the remaining part of the brake lining, but the instant application does not claim that the brake lining characteristic is coefficient of friction.

GB'424 teaches in lines 53-55 that frictional force and wear resistance are directly proportional and teaches in lines 105-107 that the friction material includes both friction and anti-wear adjusting agents. Therefore, a variation in wear resistance also yields a variation in coefficient of friction.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the brake lining characteristic of the instant application to have included coefficient of friction, as taught by GB'424, in order to adjust the braking capability of the lining to help reduce vibration and squeal.

With regard to the limitation of the brake lining and the rear plate being of one-piece construction as claimed in the copending application, Examiner notes that in *In re Goodman*, 29 USPQ 2d 2010 (Fed. Cir. 1993) the court held that for the purposes of obvious double patenting a later genus (broad) claim is not patentable over an earlier species (narrow) claim.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. WIPO 84/01412 is used since the US Patent to Bracken et al. fails to provide the appropriate figures corresponding to the patent.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 703-306-4618. The examiner can normally be reached on Monday-Friday (7:30 AM-4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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March 23, 2004

Melody M. Burch
3/23/04